

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF TEXAS  
MARSHALL DIVISION**

NETLIST, INC.,

Plaintiff,

v.

MICRON TECHNOLOGY, INC., MICRON  
SEMICONDUCTOR PRODUCTS, INC., AND  
MICRON TECHNOLOGY TEXAS LLC,

Defendants.

Civil Action No. 2:22-CV-203-JRG-RSP

**JURY TRIAL DEMANDED**

**DEFENDANTS' RESPONSIVE CLAIM CONSTRUCTION BRIEF**

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B	Excerpts from File History for U.S. Patent No. 8,787,060
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D	U.S. Patent No. 9,824,035 filed as Exhibit 1001 in IPR2022-00236
E	Excerpts from Patent Owner Sur-Reply (Paper 17) in IPR2022-00236
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N	<i>Netlist, Inc. v. Samsung Elec. Co., Ltd.</i> , No. 21-cv-00463 (E.D. Tex.), ECF No. 114, Claim Construction Order
O	<i>Netlist, Inc. v. Samsung Elec. Co., Ltd.</i> , No. 21-cv-00463 (E.D. Tex.), ECF No. 76, Netlist’s Opening Claim Construction Brief
P	<i>Netlist, Inc. v. Samsung Elec. Co., Ltd.</i> , No. 21-cv-00463 (E.D. Tex.), ECF No. 82, Samsung’s Responsive Claim Construction Brief
Q	<i>Netlist, Inc. v. Samsung Elec. Co., Ltd.</i> , No. 21-cv-00463 (E.D. Tex.), ECF No. 87, Netlist’s Reply Claim Construction Brief

Exhibit	Description
R	Highlighted Excerpts from Trial Transcript from <i>Netlist, Inc. v. Samsung Elec. Co., Ltd.</i> , No. 21-cv-00463 (E.D. Tex.)

**TABLE OF ABBREVIATIONS**

<b>Abbreviation</b>	<b>Description</b>
'060 Patent	U.S. Patent No. 8,787,060, ECF No. 97-2
'160 Patent	U.S. Patent No. 9,318,160, ECF No. 97-3
'506 Patent	U.S. Patent No. 10,860,506, ECF No. 97-4
'339 Patent	U.S. Patent No. 10,949,339, ECF No. 97-5
'918 Patent	U.S. Patent No. 11,016,918, ECF No. 97-6
'054 Patent	U.S. Patent No. 11,232,054, ECF No. 97-7
'035 Patent	U.S. Patent No. 9,824,035
<i>Netlist-Samsung</i>	<i>Netlist, Inc. v. Samsung Elec. Co., Ltd.</i> , No. 21-cv-00463-JRG (E.D. Tex.)
Stone Decl.	Declaration of Harold S. Stone, Ph.D, ECF No. 97-9
Osanai	U.S. Patent Appl. Publ. No. 2010/0312925
Tokuhiro	U.S. Patent No. 8,020,022

## I. INTRODUCTION

The Court previously construed certain claim terms in the asserted patents in the prior *Netlist Inc. v. Samsung Electronics Co. Ltd. et al.*, Case No. 2:21-cv-463-JRG (the “*Netlist-Samsung* litigation”). To reduce the burden on the Court, Micron incorporates by reference Samsung’s claim construction arguments for five of those terms without further argument to preserve the appellate issues. *See* §V.A. *infra*. For the remaining terms, many of Micron’s proposals are based on information that was not in front of the Court previously. For example, during the *Netlist-Samsung* jury trial, Netlist urged specific interpretations of the claim language for the “electrical communication” and “drive” terms (discussed in §§II.A and IV.A, below) that are unsupportable. Micron’s proposals in contrast are consistent with the claim language and a skilled artisan’s (“POSITA”) understanding and should be adopted to resolve the disputes between the parties. Similarly, Micron’s proposals for the “one or more previous operations” and “determining” terms (discussed in §§III.A-B, below) are based on Netlist’s clear and unmistakable disclaimers in *inter partes* review proceedings. Micron’s proposals for the “circuit” and “controller” terms (discussed in §§V.C-E and G, below) properly identify the terms as requiring means-plus-function treatment, as further evidenced by the fact that Netlist’s own expert during the *Netlist-Samsung* litigation treated the term “converter circuit” in terms of function only unlimited by any structural boundaries. For at least the reasons discussed herein, the Court should adopt Micron’s proposals.

## II. DISPUTED TERMS FOR U.S. PATENT NOS. 8,787,060 AND 9,318,160

### A. “electrical communication” (’060 Patent, Claims. 1, 11, 20, 29; ’160 Patent, Claim 1)

Micron’s Proposed Construction	Netlist’s Proposed Construction
Plain and ordinary meaning, <i>i.e.</i> , does not require importing a “data port” or “responsiveness” limitation	Plain and ordinary meaning, that is, “electrical communication” is

Micron's Proposed Construction	Netlist's Proposed Construction
into the claim to require electrical communications (or lack of electrical communications) between the die interconnect(s) and the data ports of the array die(s)	different from "electrical connection"

Netlist argues that "electrical communication" is different from "electrical connection." That the terms have somewhat different and somewhat overlapping meanings is not in dispute<sup>1</sup>, and there is no reason for the Court to adopt that construction. Indeed, the term "electrical connection" is not recited in any asserted claim and Netlist has not identified any reason for the Court to define the "electrical communication" claim term as a vague comparison to the non-recited term "electrical connection."

The Court should adopt Micron's position, because it is disputed whether the claim term "electrical communication" requires importing limitations of "data ports" or "responsiveness." Netlist, in the *Netlist-Samsung* trial, argued to the jury that the claim should be interpreted to mean "die interconnect[s] in electrical communication with the ... **data ports of** the group of array dies." Ex. A (*Netlist-Samsung* Trial Tr.) at 314:13-17 ("if it doesn't hook up to the data port, it **means** there is no electrical communication; whereas, above that, if there is a data port present, then we will have that electrical communication") (emphasis added). Netlist's claim construction brief offers a further interpretation: that "a die is 'not in electrical communication' when it is 'not responsive to the data signal being transmitted by the die interconnect.'" Netlist Br. at 3.<sup>2</sup> Both

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<sup>1</sup> The patents use the terms electrical communication and electrical connection as related topics. Compare, e.g., '160 patent at 3:13-17 ("forming **electrical connections** between the first die interconnect and the first subset of array die") with '160 patent claim 1 ("the first die interconnects in **electrical communication** with the first group of array dies").

<sup>2</sup> In light of Netlist's new claim interpretation, Micron has modified its proposed construction as follows: "Plain and ordinary meaning, *i.e.*, does not require importing a "data port" or "responsiveness" limitation into the claim to require electrical communications (or lack of electrical communications) between the die interconnect(s) and the data ports of the array die(s).

of these claim interpretations are unsupportable, and Micron’s proposal properly resolves the dispute.

The claims themselves demonstrate why Netlist’s proposed constructions are incorrect. The claims recite “die interconnects” “in [or not in] electrical communication” *with “array dies.”* See, e.g., ’060 patent at 23:65-24:5; see also ’160 patent at 23:51-58. The claims do not recite electrical communication with “data ports.” The claims do not recite that a die is not in electrical communication if it is “not responsive to the data signal being transmitted.”

The prosecution history also demonstrates why Netlist’s proposed constructions are incorrect. Netlist originally included a “data port” limitation in the claims, but ultimately deleted this limitation. The specific amendment, deleting the data ports limitations is reproduced below:

at least a first die interconnect and a second die interconnect, the first die interconnect in electrical communication with ~~at least one data port of a first array die of the plurality of~~ the first group of array dies and ~~at least one data port of a second array die of the plurality of array dies~~ and not in electrical communication with the ~~data ports of at least a third~~ second group of at least one array die of the plurality of array dies, the second die interconnect in electrical communication with ~~at least one data port of the third~~ the second group of at least one array die and not in electrical communication with the ~~data ports of the first group of array dies and the data ports of the second array die~~; and

Ex. B (Aug. 6, 2013 Claim Amendment) at NL-MIC-203\_00000568. The applicant explained that the claim was “amended to *better define* the inventions.” *Id.* at NL-MIC-203\_00000577. This independent claim was subsequently allowed with no further amendment. “No ordinary artisan could read the prosecution history as anything other than eliminating the [data port] requirement. . . . No other possible reason was suggested or alleged in this case.” *Blackbird Tech LLC v. ELB Electronics, Inc.*, 895 F. 3d 1374, 1378 (Fed. Cir. 2018).

The specification offers no reason for construing the claims as Netlist proposes. Netlist has not identified any disavowal or lexicography that could support its construction. Instead,

Netlist cites to mere embodiments for support. Netlist Br. at 2-3. *See Phillips v. AWH Corp.*, 315 F.3d 1305, 1320 (Fed. Cir. 2005). But these embodiments offer no support at all. For example, Netlist cites to the '060 patent at 5:41-45, 8:35-63 for discussions of electrical communication with “memory [circuitry/cells] of the array die[s].” Netlist Br. at 3. The claims, however, ***do not recite*** electrical communication with “***memory [circuitry/cells]***.”

The *Netlist-Samsung* trial shows that Netlist clearly intends to argue to the jury that the claim term requires importing limitations of “data ports” or “responsiveness.” Micron disagrees, and there is a dispute between the parties that the Court should resolve. *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1354 (Fed. Cir. 2008). Netlist’s proposal seeks to modify the claim language, but there is no support for Netlist’s proposed claim modifications, and the Court should adopt Micron’s proposal.

**B. “the second driver size being different from the first driver size” (’160 Patent, Claim 1)**

<b>Micron’s Proposed Construction</b>	<b>Netlist’s Proposed Construction</b>
“the physical dimensions of the second driver being different from the physical dimensions of the first driver”	Plain and ordinary meaning, that is, the size of the second driver being different from the size of the first driver

Construction is necessary here to resolve a dispute between the parties. Netlist is alleging that the term “driver size” is broad enough to encompass drivers of the exact same ***physical*** size if programmed to have a higher logical strength, e.g., by increasing a voltage differential. Netlist offers no expert support or citation to the specification in support of this interpretation.

Micron’s proposal, in contrast, is consistent with how a POSITA would understand the plain claim language. Stone Decl. ¶¶ 39-41. Micron’s proposal is also consistent with the context of the patent which consistently uses the term “driver size” in terms of “the physical dimensions

of the driver” and “the amount of space a driver takes up on a die or the number of physical transistors.” *Id.* ¶ 42 (citing ’160 Patent at 2:10-17, 13:13-26, and 17:14-25).

Netlist’s citation to IPR statements is inapposite. Micron did not point to logical programming changes in “driver strength” to satisfy “driver size” limitations as Netlist argues. Netlist Br. at 4. Instead, Micron’s copycat IPR discussed prior art that combined “one or more drivers” (necessarily increasing the physical dimensions) to increase driver strength (ECF No. 97-12 at 49) and “disclos[ed] *different-sized transistors* to achieve different driver strengths” (*id.*).

### C. Claim 7 of the ’060 Patent is Indefinite

Micron’s Proposed Construction	Netlist’s Proposed Construction
Indefinite	Not Indefinite

This claim term contains sequential method steps (“array die[s] are selected in consideration of a load ... so as to reduce a difference”) that render the claims in which they appear indefinite as mixed method apparatus claims. *IPXL Holdings, LLC v. Amazon.com, Inc.*, 430 F.3d 1377, 1384 (Fed. Cir. 2005) (“a single claim covering both an apparatus and a method of use of that apparatus” fails to meet the requirements of § 112). Netlist’s argument that the limitation recites a design-criteria is incorrect. Netlist Br. at 6. The claim doesn’t recite a device that “is configured” or “designed” to select array dies, it is instead broad enough to encompass a user selecting arrays dies in consideration of the recited loads in order to reduce the difference as claimed. Further, the specification is replete with examples of programming memory modules in various ways. *See e.g.*, ’060 patent at 19:13-14 (“a computer system configures to ensure the proper operation of the RDIMM”), 22:28 (“Other operational modes may also be possible”), 18:67-19:1 (“a programmable secondary 1-to-2 rank decoder”), 23:33-45 (“Conditional language used herein ... is not generally intended to imply ... that one or more embodiments necessarily include logic for deciding, with or without author input or prompting ...”). Netlist’s argument that the claim

merely recites a function also fails because there is no objective criteria to define the boundaries of the function. *See Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1371 (Fed. Cir. 2014). Here, the specification merely refers to “selecting” dies but provides no boundary for who or what selects, or how the dies are “selected in consideration”; it simply assumes that someone or something performs the selection method step. *See, e.g.*, ’060 patent at 4:17-21, 4:22-29, 8:3-8, 11:43-52, 13:19-34, 14:40-46, 17:36-49, 18:4-13. *Gesture Tech. Partners, LLC v. Huawei Device Co.*, No. 2:21-CV-40, 2021 WL 4760632, at \*23 (E.D. Tex. Oct. 12, 2021) is distinguishable because, here, claim 7 does not recite a mere device capability. The action language “array die are selected in consideration of a load” contains no indication whether the array die are selected during manufacturing or when programming the memory module to operate in various ways. *See Barkan Wireless IP Holdings, L.P. v. Samsung Elecs. Co.*, No. 2:18-CV-28-JRG, 2019 WL 497902, at \*33 (E.D. Tex. Feb. 7, 2019).

### III. **DISPUTED TERMS FOR U.S. PATENT NO. 10,860,506**

#### A. “one or more previous operations” (Claims 1–3, 11, 15, and 16)

<b>Micron’s Proposed Construction</b>	<b>Netlist’s Proposed Construction</b>
“one or more previous memory operations” where “memory operations” are different from leveling operations	“one or more previous memory operations”

As an initial matter, the parties agree that the term refers to “memory operations.” Micron’s proposal, however, is based on Netlist’s clear and unmistakable disclaimers of claim scope made during prosecution. In defending an IPR challenging the grandparent of the ’506 patent—U.S. Patent No. 9,824,035 (the “’035 patent”) (Ex. D)—Netlist repeatedly argued that the claim term “one or more previous memory operations” is not met by prior art that discloses leveling operations. For example, Netlist argued:

*... as Netlist expressly argued in its Response that the write leveling procedure that follows any MRS command does not include any “memory operation” and is not a “memory operation” in its own right.*

Ex. E (IPR2022-00236, Patent Owner Sur-Reply) at 4 (emphasis added). Netlist repeated this disclaimer during the IPR oral argument:

JUDGE SZPONDOWSKI: What about the write leveling procedure itself, the write leveling operation. Isn't that the memory operation?

[Netlist counsel]: I think, no, Your Honor, it's not the memory operation. It's not a memory operation . . . .

Ex. F (IPR2022-00236, Hr'g Tr.) at 45:11–14.<sup>3</sup> These are clear disclaimers of claim scope. *See Droplets, Inc. v. eBay, Inc.*, No. 2:11-cv-00401-JRG-RSP, 2014 WL 4217376, at \*20 (E.D. Tex. Aug. 22, 2014) (disclaimer by stating “web address” is not program code); *In re Katz Interactive Call Processing Pat. Litig.*, 639 F.3d 1303, 1324–25 (Fed. Cir. 2011) (disclaimer based on reexamination arguments).

Netlist's disclaimer arguments are applicable to the '506 patent. *See Ormco Corp. v. Align Technology, Inc.*, 498 F.3d 1307, 1314 (Fed. Cir. 2007) (“When the application of prosecution disclaimer involves statements from prosecution of a familial patent relating to the same subject matter as the claim language at issue in the patent being construed, those statements in the familial application are relevant in construing the claims at issue.”). The '035 and '506 patents are continuations that share the same specification. '506 Patent, 1:6–16. The patents also both recite

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<sup>3</sup> The PTAB issued its final written decision on June 20, 2023, after Netlist filed its opening claim construction brief. The PTAB's decision rejected Netlist's argument distinguishing memory operations and leveling operations. Ex. G (IPR2022-00236, Final Written Decision) at 28–33. Netlist has not indicated whether it will appeal. The resolution of this potential appeal may impact claim construction in this proceeding and is further reason why the Court should grant Micron's pending motion to stay. *See* ECF. No. 80.

a claimed memory “operation” where a timing delay is determined to control timing of a read strobe. *Compare* ’506 patent claim 1 *with* ’035 patent, claim 1.

Netlist’s arguments to the contrary cannot undo this disclaimer. Netlist argues that it “at most only distinguished the prior DDR3 write leveling technique discussed in JESD79-3 from ‘memory operations.’” Netlist Br. at 8. The fallacy of this argument is shown in at least the quotes identified above, which were not so constrained. *See Traxcell Techs., LLC v. Nokia Sols. & Networks Oy*, 15 F.4<sup>th</sup> 1136, 1144 (Fed. Cir. 2021) (rejecting argument that “narrower disclaimer would have been enough to overcome the prior art [because] patentee is held to the actual arguments made, not the arguments that could have been made”). Further, as made clear by the IPR briefing, the Osanai prior art discloses non-DDR3 leveling techniques (Ex. H (Osanai), ¶¶ 146-149) and the Tokuhiro prior art improved on a problem with DDR3 write leveling, (Ex. I (Tokuhiro) at 2:54–59), and defined the term more broadly, (*Id.* at 2:13-18 (“The term ‘write leveling function’ refers to the function of sampling the clock signal. . . detecting the phase relationship. . . and adjusting (compensating) a delay time”). *See* Ex. J (IPR2022-00236, Petitioner’s Reply) at 2, 11; Ex. K (IPR2022-00236, Petition) at 34–36.

**B. “determining . . .” (Claim 14)**

<b>Micron’s Proposed Construction</b>	<b>Netlist’s Proposed Construction</b>
<i>“during one or more previous memory operations, determining the first predetermined amount based at least on signals received by the first data buffer”</i> where “memory operations” are different from leveling operations.	The step of “determining the first predetermined amount based at least on signals received by the first data buffer” occurs before the earlier recited step of “receiving . . . input C/A signals”

The Court previously construed this term in the *Netlist-Samsung* litigation. But, in reaching this decision, the Court did not consider Netlist’s IPR prosecution statements.

In IPR2022-00711, Netlist argued that the prior art did not disclose a determination that occurs during one or more previous memory operations. Micron’s proposal is based on this disclaimer. Netlist made this argument for both of the ’506 patent’s independent claims, even though only claim 1 is explicit:

As such, the Petitioner has failed to show that Hiraishi teaches or suggests the strobe delay feature—specifically that “the first predetermined amount [of delay to the read strobe] is determined based at least on signals received by the first data buffer *during one or more previous operations*,” as recited in claim 1 *and reflected in the limitations of claim 14*.

Ex. L (IPR2022-00711, Patent Owner Response) at 32 (emphasis added). Netlist further argued that this “reflected limitation” found in claim 14 distinguishes the claim from the IPR prior art reference Hiraishi:

Petitioner has not made a prima facie case that Hiraishi discloses a “first data buffer . . . configurable to, in response to one or more of the module control signals: delay the first read strobe by a first predetermined amount to generate a first delayed read strobe,” where “the first predetermined amount is determined based at least on signals received by the first data buffer *during one or more previous operations*,” as required by independent claim 1 (referred to herein as the “strobe delay feature”). *The same deficiency exists with respect to the method of claim 14, which also recites the strobe delay feature* as follows: “delaying the first read strobe by a first predetermined amount to generate a first delayed read strobe,” and “before receiving the input C/A signals corresponding to the memory read operation at the module control device, determining the first predetermined amount based at least on signals received by the first data buffer.”

Ex. M (IPR2022-00711, Patent Owner Prelim. Response) at 30 (emphases added). *See also* Ex. L at 22 (repeating argument that “[t]he same deficiency exists for independent claim 14”).

Netlist clearly and unmistakably argued that the “strobe delay feature”—which includes that “the first predetermined amount is determined based at least on signals received by the first data buffer *during one or more previous operations*”—is both “recited” and “reflected” in claim

14. By arguing that the “strobe delay feature” distinguishes both claims 1 and 14 from the prior art, Netlist statements narrowed claims 14 to survive invalidity challenges to include “determining the first predetermined amount” “during one or more previous operations.” *Hockerson-Halberstadt, Inc. v. Avia Grp. Int’l, Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000) (determining that arguments in the prosecution history qualified as a clear disclaimer). Prosecution disclaimer thus precludes Netlist from recapturing through claim interpretation specific meanings that it used to overcome the prior art—that is, claim 14 does not include that the determination step occurs “during one or more previous operations.” *Hockerson-Halberstadt*, 222 F.3d at 957 (“The prosecution history constitutes a public record of the patentee’s representations concerning the scope and meaning of the claims, and competitors are entitled to rely on those representations when ascertaining the degree of lawful conduct, such as designing around the claimed invention.”). As shown above, *see* § III.A, Netlist’s disclaimer arguments also foreclose leveling operations from satisfying “memory operations.”

#### IV. DISPUTED TERMS FOR U.S. PATENT NO. 10,949,339

##### A. The “Drive a Respective . . . Section of . . . Data” Terms (Claims 1, 11, 19, 27)<sup>4</sup>

Term	Micron’s Proposed Construction	Netlist’s Proposal
“to actively drive a respective <b>byte-wise section</b> of the N-bit wide <b>write data</b> ”	Adopts and applies the Court’s adoption of the “fork-in-the-road” configuration and rejection of the “straight-line” configuration to construe “drive” to mean “enabling only one of the data paths while the other possible paths are disabled,” <i>i.e.</i> , “to <b>enable only one of the data paths for the respective byte-wise section of the N-bit wide write data while the other possible data paths for the same respective byte-wise section of the N-bit wide write data are disabled</b> ”	to “drive” means “enabling only one of the data paths while the other possible paths are disabled”  No further construction necessary

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<sup>4</sup> Netlist states that “[c]laim 1 of the ’339 patent is representative of the parties’ dispute regarding the ‘drive’ terms.” Netlist Br. at 9, fn2. For purposes of construing the “drive” terms, Micron agrees and therefore presents arguments based on claim 1 only.

**1. Micron’s proposed construction adopts and applies the Court’s prior construction of the “drive” term**

Micron is not seeking to change the Court’s prior construction. The Court previously construed the term “drive” to mean “enabling only one of the data paths while the other possible paths are disabled.” Ex. N (*Netlist-Samsung* Markman Order) at 34. Micron merely adopts the Court’s prior construction and applies it *verbatim* into the larger term. As shown above, Micron’s proposed construction does not add any new language, other than the underlined “for” and “for the same” connecting the Court’s construction of the term “drive” to the surrounding claim language.<sup>5</sup>

Construing the entire term, instead of construing just a single word (*i.e.*, “drive”), is helpful because it clarifies the relationship between the “data path” that forms part of the Court’s construction of the term “drive” and the remainder of the claim term “*respective byte-wise section of the ... write data.*” For example, Micron’s proposed construction clarifies that the “data path” in claim 1 is for a “byte-wise section” of “write data”—*i.e.*, a byte-wise write data path. This is consistent with claim 1, which further specifies that the data path is a “byte-wise data path.” ’339 Patent, Claim 1 (“... and a byte-wise data path between the first side and the second side ...”). Thus, construing the entire term, including the term “drive,” will help the jury understand the context of the “data path” and prevent confusion that may be caused when the term “drive” is construed in isolation from the rest of the claim. *Sound View Innovations, LLC v. Hulu, LLC*, 33 F.4th 1326, 1333 (Fed. Cir. 2022) (“Proper claim construction ‘demands interpretation of the entire claim in context, not a single element in isolation.’”) (citations omitted).

Netlist opposes Micron’s construction because it wishes to remove the Court’s construction from the context of the claims. Indeed, Netlist did exactly that in the *Netlist-Samsung*

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<sup>5</sup> In the table, above, the Court’s construction of the term “drive” is highlighted bold. Words Micron added are underlined.

litigation. At the *Netlist-Samsung* trial, Netlist argued that the “*data paths*” in claim 1 do not have to be *write* data paths, even though the claim language specifies that the data flowing through it is “*write data*”:

There was another word game that was played by counsel. *It says, Enabling one of the data paths. But he said that had to be a write data path. Do you remember that?* He said it had to be a write data path. You’re going to get the Court’s claim construction in your binders. *And if anyone tells you the data path has to be only a write data path, point them to Judge Gilstrap’s construction [of the term “drive”], not the spin that was put on it by Samsung.*

...

Go to JTX 20 at page 1. Go to JTX 20 at page 1. You will see two paths on the right-hand side, upper and lower nibble, two paths, and *look at that claim construction [for the term “drive”] and see if it mentions the words “not read”. It does not.*

Ex. R (*Netlist-Samsung* Trial Tr.) at 1373:7-21 (emphases added). Netlist also argued that the “*data path*” in claim 1 of the ’339 patent can be less than a byte (*e.g.*, a nibble, or half byte), even though claim 1 specifies that the data path is a “*byte-wise data path*” that drives “*a byte-wise section of ... data*”:

Now, Doctor Mangione-Smith pointed out to you and specifically pointed out that *because the buffers have an upper nibble and a lower nibble, there are two paths, path one and path two*, and the data, as it comes in, can make a choice as to what path it goes on. And he spoke about the fact that those are different transmissions, two paths, the upper half byte and the lower half byte.

*Id.* at 1333:14-20 (emphasis added). To prevent Netlist from taking the Court’s proper construction of the term “*drive*” out of context, it is necessary to apply the Court’s construction of the term “*drive*” to the entire term “*actively drive a byte-wise section of the N-bit wide write data.*”

## 2. Netlist Is Estopped from Relitigating the Same Claim Construction Argument the Court Already Rejected

Netlist’s argument that the claims encompass “a ‘straight-line’” configuration is estopped. *Ottah v. Fiat Chrysler*, 884 F3d 1135, 1140 (Fed. Cir. 2018). Netlist previously made this same

argument in the *Netlist-Samsung* litigation. *See, e.g.*, Ex. O (*Netlist-Samsung* Netlist Open. Claim Const. Br.) at 5 (“The Claims of the ’339 Patent Are Not Limited to the ‘Fork-in-the-Road’”); *id.* at 6 (“To the contrary, the specification expressly contemplates a straight-line configuration”); *see also* Ex. Q (*Netlist-Samsung* Netlist Reply Claim Const. Br.) at 7-9 (arguing that the ’339 patent embodiments disclose enabling “Straight Line” read and write paths independently). This Court already rejected Netlist’s argument, however. Ex. N at 9 (“Netlist argues the inventors never disclaimed the plain meaning of the claim language to limit the scope of the claims [to the ‘fork-in-the-road’ approach] as suggested by Samsung. The Court agrees with Samsung ... In other words, the claimed invention, unlike the cited prior art, is about selectively opening otherwise closed data paths”); *id.* at 10 (“the Court adopts the so-called fork-in-the-road approach”). Netlist presents “no reason for departing from the rules of collateral estoppel or *stare decisis* as to this claim term.” *Ottah v. Fiat Chrysler*, 884 F.3d at 1140; *see also Brady Const. Innovations, Inc. v. Perfect Wall, Inc.*, 290 Fed. Appx. 358, 363 (Fed. Cir. 2008) (“Under the principles of *stare decisis* and the Supreme Court’s guidance in *Markman*, this court follows the claim construction of prior panels absent exceptional circumstances.”). The Court’s decision rejecting Netlist’s “straight line” construction of the term “drive” thus binds Netlist.

Netlist’s argument that Micron’s proposed construction excludes embodiments, such as those depicted in Figures 3B and 4B, should also be rejected under *stare decisis* and collateral estoppel, as it a mere regurgitation of the same argument that this Court already rejected. Netlist Br. at 11. Netlist previously argued in the *Netlist-Samsung* litigation that adopting the fork-in-the-road approach and rejecting the straight-line approach would exclude these embodiments from the ’339 patent. Ex. O at 7 (arguing that limiting the claim scope to the fork-in-the-road approach would exclude an embodiment shown in FIG. 4B); Ex. Q at 8 (arguing that limiting the claim

scope to the fork-in-the-road approach would exclude an embodiment shown in FIG. 3B). But the Court already rejected Netlist’s argument. Ex. N at 9, 10. Netlist has provided no reason, no “exceptional circumstances,” that would warrant the Court modifying its prior decision. *Brady Const.*, 290 Fed. Appx. at 363.

## V. DISPUTED TERMS FOR U.S. PATENT NOS. 11,016,918 AND 11,232,054

### A. Terms at issue in *Netlist-Samsung*

The following terms were construed in the *Samsung* litigation:

1.	“a second plurality of address and control signals” (’918, cls. 1-3, 4-7, 9-13, 15, 21)
2.	“dual buck converter” / “dual-buck converter” (’918, cls. 2, 17, 28; ’054, claim 15)
3.	“first” / “second” / “third” / “fourth” “regulated voltages” (’918, all asserted claims) & “first” / “second” / “third” / “fourth” “regulated voltage amplitude” (’918, all asserted claims)
4.	“at least three regulated voltages” (’054, cls. 1-15) & “plurality of regulated voltages” (’054 patent, claims 16, 24)
5.	“A memory module” (’918, all asserted claims; ’054, all asserted claims)

Micron proposes that the terms should be construed in accordance with Samsung’s proposals for these terms. For the sake of efficiency and to avoid repeating arguments, Micron incorporates by reference Samsung’s arguments for these terms. *See, e.g.*, Ex. P (*Netlist-Samsung Samsung Resp. Claim Const. Br.*) at 6-13.

### B. “pre-regulated input voltage” / “input voltage” (’918 Patent, Claims 16-22, 30)

Micron’s Proposed Construction	Netlist’s Proposed Construction
plain and ordinary meaning, where “a pre-regulated input voltage” is different from “an input voltage”	plain and ordinary meaning (i.e., no further construction necessary)

The parties dispute whether the recited “a pre-regulated input voltage” is different from the separately recited “an input voltage.” This dispute is not the same dispute that was at issue in the *Netlist-Samsung* litigation, where Netlist and Samsung both agreed that “the parties’ dispute lies with ‘pre-regulated’ and specifically where the ‘pre-regulation’ occurs.” Ex. P (*Netlist-Samsung*

Samsung Resp. Claim Const. Br.) at 4 (emphasis in original); Ex. O (*Netlist-Samsung* Netlist Open. Claim Const. Br.) at 25 (“The parties disagree, however, where that voltage regulation needs to occur.”); Ex. N (*Netlist-Samsung* Markman Order) at 21 (analyzing dispute of “‘specifically where the ‘pre-regulation’ occurs”). Indeed, in the *Netlist-Samsung* litigation, Samsung proposed that the term be construed as “‘regulated voltage generated on the memory module from an input voltage.’” See Ex. P at 4. Micron is not proposing that claim construction here.

Micron’s construction is correct because it “stays true to the claim language.” *Phillips*, 415 F.3d at 1316 (internal quotation marks omitted). Claim 16 expressly and separately recites “buck converters configured to receive a pre-regulated input voltage” and “a voltage monitor circuit configured to receive an input voltage,” thereby making clear on its face that the two terms are different. See *CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co. KG*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.”). The presumption is further confirmed here by the fact that the claims use antecedent identifiers to explicitly distinguish the two different terms. See ’918 claim 16 (reciting “a pre-regulated input voltage” and “the pre-regulated input voltage,” while also reciting “an input voltage” and “the input voltage.”). Netlist has provided no reason to deviate from the presumption that different claim terms are presumed to have different scope and should be rejected. If Netlist had intended to refer to the same voltage signal elements where those two terms are separately recited, Netlist should have claimed its invention as such. See *Ecolab, Inc. v. FMC Corp.*, 569 F.3d 1335, 1344 (Fed. Cir. 2009) (claim construction is not a substitute for claim drafting).

Micron’s construction is also correct because it “most naturally aligns with the patent’s description of the invention.” *Phillips*, 415 F.3d at 1316 (internal quotation marks omitted). The

specification identifies voltage signal lines 1110 and 1112 as the 4<sup>th</sup>/5<sup>th</sup> “pre-regulated voltage[s].” ’918 patent, 28:55-57. The specification does not separately identify a voltage signal line as “input voltage,” but it does describe that the “voltage monitor circuit 1050 monitors the voltage supplied by the host system via the interface 1022”—a description which is depicted in the specification’s Figure 12 as an unnumbered voltage signal line between interface 1022 and voltage monitor 1050. ’918 patent, 25:9-10, FIG. 12. As such, the specification consistently identifies the input voltage signal line as something physically different than the pre-regulated voltage signal line.

Netlist’s plain meaning proposal hides its true interpretation that the separately recited terms “a pre-regulated input voltage” and “an input voltage” can be met with a single voltage signal line. *See* Netlist at 17 (Netlist arguing that “the pre-regulated input voltage . . . could be . . . input voltage received via edge connections”). Not only is such an interpretation contrary to the express recitations of those terms in the claims, but there is absolutely no support in the claim language or specification for such a construction.

### C. “converter circuit” (’918 Patent, All Asserted Claims)

Micron’s Proposed Construction	Netlist’s Proposed Construction
<p>This is a means-plus-function limitation.</p> <p><u>Function (claim dependent)</u></p> <ul style="list-style-type: none"> <li>(i) “provid[ing] a fourth regulated voltage having a fourth voltage amplitude”;</li> <li>(ii) “reduc[ing] the pre-regulated input voltage to provide a fourth regulated voltage”;</li> <li>(iii) “provid[ing] the fourth regulated voltage”;</li> <li>(iv) “reduc[ing] the pre-regulated voltage input to provide the fourth regulated voltage”</li> </ul> <p>The corresponding structure that is “configured to” perform the recited functions is a “converter circuit,” as described in the ’918 patent at 29:18–64.</p>	<p>Not subject to § 112, ¶ 6; plain and ordinary meaning, i.e., a circuit for voltage conversion</p>

The “converter circuit” limitation recited in all claims is a means-plus-function limitation governed by 35 U.S.C. § 112, ¶ 6. The limitation recites a generic term (“converter circuit”) that provides no known structure for performing the functions recited in the separate claims: providing a regulated voltage or reducing a pre-regulated input voltage to provide another regulated voltage. The only corresponding structure that is “configured to” perform the recited functions is a “converter circuit,” as described in the ’918 patent at 29:18–64.

Netlist argues that the “converter circuit” limitation connotes structure and therefore is not claimed solely by function. *See* Netlist Br. at 18-21. But this argument is contradicted by the testimony of Netlist’s expert Dr. William Mangione-Smith given to the jury in the *Netlist-Samsung* trial. There, Dr. Mangione-Smith testified that he “did not look for any structural element **beyond the functional requirement that something reduced the voltage**” so that “**any circuit that converts a voltage is a converter circuit.**” Ex. A (*Netlist-Samsung* Trial Tr.) at 416:21-23 and 416:3-5 (emphasis added).

In *Williamson v. Citrix Online, LLC*, 792 F.3d 1339 (Fed. Cir. 2015), the Federal Circuit established what is now the current standard for application of § 112, ¶ 6. As part of its analysis of whether the term at issue there (“distributed learning control module”) was subject to § 112, ¶ 6, the Court examined whether the entire claim term operated as a substitute for “means” by setting forth the same “black box recitation of structure” for providing a specified function as if the word “means” had been used, which would suggest that the claim term was drafted in a format consistent with traditional mean-plus-function limitations. *Id.* at 1349-50. The Court also analyzed whether the claim term (“module”) was simply a “well-known nonce word” for software or hardware, much like generic terms such as “mechanism,” “element,” “device,” or other “nonce words that reflect nothing more than verbal constructs.” *Id.* at 1350. The Court further analyzed whether the prefix

“distributed learning control” imparted any structure to the term “module.” *Id.* at 1351. The Court also looked to whether the remaining claim language described how the term interacted with other components such that a POSITA would be informed of the structural character of the limitation at issue. *Id.* Ultimately, the Court found that the term was subject to § 112, ¶ 6. *Id.* at 1351.

Applying the Federal Circuit’s reasoning in *Williamson* to the “converter circuit” limitation confirms it is a means-plus-function limitation. First, Netlist drafted the “converter circuit configured to” limitation in a format consistent with traditional means-plus-function limitations. *See MTD Prods.*, 933 F.3d at 1343 (explaining that claim language reciting what a nonce term is “configured to” do is functional).

Second, “converter circuit” is a generic nonce term that does not alone provide any indication of structure for performing the claimed functions. Although some courts have found the term “circuit” to connote structure when used with an appropriate identifier, there is no hard and fast rule. *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364, 1373 (Fed. Cir. 2003) (“[W]e do not find it necessary to hold that the term ‘circuit’ by itself always connotes sufficient structure”). At least two courts have found that claim language did not provide sufficient structural support when “circuit” was used, as here, in its generic sense. *See Limestone Memory Sys., LLC, v. Micron Tech., Inc.*, No. 8:15-cv-00278, 2019 WL 6655273, at \*17–19 (C.D. Cal. Sept. 11, 2019); *Koninklijke Philips N.V. v. ZOLL Lifecor Corp.*, No. 2:12-cv-01369, 2015 WL 12781199, at \*14 (W.D. Pa. Aug. 28, 2015); Stone Decl., ¶ 51 (a POSITA would understand that that “converter circuit” was used here in a generic sense, without connoting any specific structure for performing the claimed functions).

Third, the remaining claim language associated with the “converter circuit” fails to describe any structure for performing the claimed functions. Stone Decl., ¶ 52. For example, the claims do

not describe how the “converter circuit” interacts with other claimed components to perform the claimed functionality so as to inform a POSITA of the structural character of the “converter circuit.” Stone Decl., ¶ 52. The remaining claim language merely recites what the “converter circuit” is configured to do, e.g., provide a regulated voltage or reduce a pre-regulated input voltage to provide another regulated voltage. But this language recites only functionality, i.e., no other structural components.

Netlist’s reliance on *Power Integrations, Inc. v. Fairchild Semiconductor Int’l, Inc.*, 711 F.3d 1348 (Fed. Cir. 2013), *MIT v. Abacus Software*, 462 F.3d 1344 (Fed. Cir. 2006), *Linear Tech. Corp. v. Impala Linear Corp.*, 379 F.3d 1311 (Fed. Cir. 2004), and *Apex Inc. v. Raritan Computer, Inc.*, 325 F.3d 1364 (Fed. Cir. 2003) are inapposite. Specifically, those are all pre-*Williamson* cases, and the Federal Circuit has cautioned against relying on pre-*Williamson* precedent and specifically distinguished *Linear. Egenera, Inc. v. Cisco Sys.*, 972 F.3d 1367, 1374 (Fed. Cir. 2020).

Similarly, Netlist’s reliance on claim language reciting how the “converter circuit” is “coupled” and what the “converter circuit” is “configured to” do does not dictate a finding that the “converter circuit” limitation is not a means-plus-function limitation. Specifically, that claim language does not impart sufficiently definite structure into the term “converter circuit,” and therefore does not disqualify the claim from § 112(6) treatment. *See Williamson*, 792 F.3d at 1351. Here, like *MTD Products*, the claim language recites purely functional language by describing what the “converter circuit” is “configured to” do despite reciting how the “converter circuit” is “coupled” to other components. *MTD Prods.*, 933 F.3d at 1343 (“[w]hile the claim language reciting that the mechanical control assembly is ‘coupled to the left and right drive units’ connotes structure, the claim language reciting what the mechanical control assembly is ‘configured to’ do

is functional”). In doing so, “the claim format tends to favor [the] position that § 112, ¶ 6 applies.” *Id.*; see also *Williamson*, 792 F.3d at 1351.

Notably, the Federal Circuit has made clear that the test for determining whether § 112, ¶ 6 applies is whether the claim term would connote sufficient structure to “***persons of ordinary skill in the art.***” See *Williamson*, 792 F.3d at 1349 (emphasis added). Here, both Micron’s and Netlist’s experts agree that the “converter circuit” limitation is recited solely by function without reciting sufficient structure for performing that function. See Stone Decl., ¶¶ 51-52; Ex. A (*Netlist-Samsung Trial Tr.*) at 416:21-23 and 416:3-5 (Dr. Mangione-Smith agreeing that he interpreted the “converter circuit” limitation such that to meet the limitation he looked at only “***the functional requirement that something reduced the voltage***” so that “***any circuit that converts a voltage is a converter circuit.***”) (emphasis added).

Regarding corresponding structure, the only arguable portion of the ’918 patent that describes how the claimed functionality of the “converter circuit” is carried out is found at 29:18–64. This section discloses that the “conversion element 1120” can include “various converter circuits,” such as “buck converters,” “boost converters,” “buck-boost converters,” and a “dual buck converter.” Although there is no express disclosure, any one of the foregoing converters can perform the claimed functionality of “provid[ing] a fourth regulated voltage having a fourth voltage amplitude” and “provid[ing] the fourth regulated voltage.” Similarly, although there is no express disclosure, any one of the “buck converters,” “buck-boost converters,” and a “dual buck converter[s]” can perform the claimed functionality of “reduc[ing] the pre-regulated input voltage to provide a fourth regulated voltage” and “reduc[ing] the pre-regulated voltage input to provide the fourth regulated voltage.”

**D. “at least one circuit” (’918 Patent, Claims 1-3, 5-7, 9-13, 15, 21)**

<b>Micron’s Proposed Construction</b>	<b>Netlist’s Proposed Construction</b>
<p>This is a means-plus-function limitation.</p> <p><u>Function (claim dependent)</u></p> <p>(i) “receiv[ing] a first plurality of address and control signals via the first portion of the plurality of edge connections”;</p> <p>(ii) “output[ting] a second plurality of address and control signals to the plurality of SDRAM devices”;</p> <p>(iii) “receiv[ing] a first plurality of address and control signals via a second portion of the plurality of edge connections”;</p> <p>(iv) “output a second plurality of address and control signals to the plurality of SDRAM devices”</p> <p>The corresponding structure that is “operable to” perform the recited functions is a “circuit that is different from a memory module controller,” as described in the ’918 patent at 21:14–26:65, 29:33–54.</p>	<p>Not subject to § 112(6); plain and ordinary meaning.</p> <p>If subject to § 112(6), then:</p> <p>Function: (i) receive a first plurality of address and control signals via [the first/a second] portion of the plurality of edge connections, and (ii) output a second plurality of address and control signals to the plurality of SDRAM devices.</p> <p>Structures: As described in 21:14-23, 23:27-31, 23:41-24:8 or equivalents thereof.</p>

The “at least one circuit” limitation is purely functional and fails to recite sufficient structure for performing the claimed functionality. As such, the limitation invokes § 112, ¶ 6.

Applying the Federal Circuit’s reasoning in *Williamson*<sup>6</sup> to the “at least one circuit” limitation confirms it is a means-plus-function limitation. First, Netlist drafted the “at least one circuit” limitation in a format consistent with traditional means-plus-function limitations. *See MTD Prods.*, 933 F.3d at 1343 (explaining that claim language reciting what a nonce term is “configured to” do is functional).

Second, for the reasons explained for the “converter circuit” term above, “at least one circuit” is a generic nonce term that does not alone provide any indication of structure for

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<sup>6</sup> *See, supra*, § V.C for discussion of the factors considered in *Williamson*.

performing the claimed functions. Further here, a POSITA would understand that “at least one circuit” was used here in a generic sense and does not connote any specific structure for performing the claimed functions. Stone Decl., ¶ 55.

Third, the remaining claim language associated with the “at least one circuit” fails to describe any structure for performing the claimed functions. Stone Decl., ¶ 56. For example, the claims do not describe how the “at least one circuit” interacts with other claimed components to perform the claimed functionality so as to inform a POSITA of the structural character of the “at least one circuit.” Stone Decl., ¶ 56. The remaining claim language associated with the “at least one circuit” recites merely what the “at least one circuit” is configured to do, e.g., receive a first plurality of address and control signals and output a second plurality of address and control signals. But this language recites only functionality, i.e., no other structural components, and fails to provide any insight as to the structure of the “at least one circuit” or what kind of structure would perform the claimed functionality of the claimed “at least one circuit.”

Netlist’s reliance on claim language reciting how the “at least one circuit” is “coupled” and what the “at least one circuit” is “operable to” do does not dictate a finding that the “at least one circuit” limitation is not a means-plus-function limitation. Here, like *MTD Products*, the claim language recites purely functional language by describing what the “at least one circuit” is “operable to” do despite reciting how the “at least one circuit” is “coupled” to other components. *MTD Prods.*, 933 F.3d at 1343 (“[w]hile the claim language reciting that the mechanical control assembly is ‘coupled to the left and right drive units’ connotes structure, the claim language reciting what the mechanical control assembly is ‘configured to’ do is functional”). In doing so, “the claim format tends to favor [the] position that § 112, ¶ 6 applies.” *Id.*; see also *Williamson*, 792 F.3d at 1351.

Notably, Netlist provides no expert testimony explaining whether a POSITA would view the term solely by function and subject to § 112, ¶ 6 despite the fact that the Federal Circuit has made clear that the test for determining whether § 112, ¶ 6 applies is whether the claim term would connote sufficient structure to “*persons of ordinary skill in the art.*” See *Williamson*, 792 F.3d at 1349 (emphasis added).

As with the “converter circuit” claim, Netlist is incorrect in arguing that Micron aggregates functions from different claims and apply them to all claims. Netlist Br. at 23-24. Micron simply identifies for the Court the various places where the “at least one circuit” limitation is claimed and identifies the claim dependent functions.

Regarding corresponding structure, the description of the corresponding structure is found at 21:14–26:65 and 29:33–54 of the ’918 patent. There, the ’918 patent expressly discloses that the “at least one circuit” is switch 1052 that is shown in FIGs. 12-14. Nowhere in the entire specification is there disclosure associating the expressly disclosed “at least one circuit” with anything other than switch 1052 shown in FIGs. 12-14.

With respect to Netlist’s identification of FIGs. 15A-C, the ’918 patent further discloses that “the at least one circuit 1052 can comprise one or more switches 1172.” ’918 patent, 23:45-46. That same paragraph also discloses that the memory system can include “one or more switches 1170.” ’918 patent, 23:51. In light of the foregoing, as a *compromise*, Micron is willing to agree to Netlist’s proposal for the “corresponding structure” if clarified as shown below:

[T]he corresponding structure ~~is~~ includes: switch 1052 in Figs. 12-14 and/or ~~register 1160~~ switches 1170 and/or 1172 in Figs. 15A-C. See ’918 patent, 21:14-23, 23:27-31, 23:41-24:8.

Netlist Br. at 24. The foregoing “compromise corresponding structure” is a proper corresponding structure because, as Netlist correctly points out, “Figs. 12-14 depict the ‘at least one circuit’ 1052

‘Switch’ receiving address/control signals (labeled ‘ADDR/CONT’) from DIMM interface 1022 and transmitting address/control signals to SDRAMs 1032. *See* ’918 patent, 21:14-23, 23:27-31.” Netlist Br. at 24. In other words, both Micron and Netlist agree that the foregoing “compromise corresponding structure” is disclosed in the ’918 patent as performing the claimed functions of the claimed “at least one circuit” limitation. Additionally, the foregoing “compromise corresponding structure” moots Netlist’s concerns regarding Micron’s identification of the corresponding structure as a “circuit that is different from a memory module controller” because the “compromise corresponding structure” no longer expressly calls out a “memory module controller,” which was Netlist’s primary concern.

**E. “controller” (’918 Patent, Claims 12, 18-19, 25-26; ’054 Patent, Claims 5, 7-13, 16-17, 23-25, 29-30)**

Micron’s Proposed Construction	Netlist’s Proposed Construction
<p>This is a means-plus-function limitation.</p> <p><u>Function in ’918 Patent (claim dependent)</u></p> <p>(i) “receiv[ing] the trigger signal, wherein, in response to the trigger signal, the controller performs a write operation to the non-volatile memory”;</p> <p>(ii) “receiv[ing] the signal, wherein the controller executes a write operation in response to the signal”;</p> <p>(iii) “receiv[ing] the signal, wherein, in response to the signal, the controller executes a write operation”</p> <p><u>Function in ’054 Patent (claim dependent)</u></p> <p>(i) “perform[ing] one or more operations including a write operation to transfer data to non-volatile memory” “in response to the trigger signal”;</p> <p>(ii) “perform[ing] one or more operations in response to the voltage monitor circuit detecting an amplitude change in the input voltage, and wherein the one or more operations include a write operation to transfer data into non-volatile memory”</p> <p><u>Corresponding Structure in ’918 Patent</u></p>	<p>Not subject to § 112(6) and not indefinite; plain and ordinary meaning.</p> <p>To the extent that “controller” is a § 112(6) term, the function and corresponding structure vary for each claim, contrary to Micron’s attempt to aggregate all functions into the term.</p> <p>Structures: ASIC, PLD, CPLD, FPGA, custom-designed semiconductor device as described in 23:1-27, 24:35-37, 25:8-31, 29:33-54, 32:49-51 or equivalents thereof.</p>

Micron’s Proposed Construction	Netlist’s Proposed Construction
<ul style="list-style-type: none"> <li>The corresponding structure that is “configured to” perform the recited functions is a “controller that is different from the at least one circuit and the voltage monitor circuit and the one or more registers,” as described in the ’918 patent at 21:14–26:65, 29:33–54.</li> </ul> <p><u>Corresponding Structure in ’054 Patent</u></p> <ul style="list-style-type: none"> <li>The corresponding structure that is “configured to” perform the recited functions is a “controller that is different from the first circuit and the voltage monitor circuit,” as described in the ’054 patent at 21:14–26:65, 29:33–54.</li> </ul>	

The “controller” limitation is purely functional and fails to recite sufficient structure for performing the claimed functionality. As such, the limitation invokes § 112, ¶ 6.

Applying the Federal Circuit’s reasoning in *Williamson*<sup>7</sup> to the “controller” limitation confirms it is a means-plus-function limitation. First, Netlist drafted the “controller configured to” limitation in a format consistent with traditional means-plus-function limitations. *See MTD Prods.*, 933 F.3d at 1343.

Second, “controller” is a generic nonce term that does not alone provide any indication of structure for performing the claimed functions. Indeed, “[t]erms such as ‘controller’ often connote insufficient structure to take the limitation outside the bounds of Section 112(f).” *Incom Corp. v. Radiant RFID, LLC*, No. 1-17-CV-009-LY, 2018 WL 4690934, at \*5 (W.D. Tex. Sep. 28, 2018). Such is the case here. Indeed, the present “controller” term is even more bare-bones and structureless than the actual “*tag orientation* controller” term at issue in *Incom*. *See id.* (“the term ‘tag orientation controller’ fails to recite sufficiently definite structure”). Here “controller” is

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<sup>7</sup> *See supra* § V.C for discussion of the factors considered in *Williamson*.

recited without any limiting identifiers. Further, here a POSITA would understand “controller” was used in a generic sense without connoting any specific structure. Stone Decl., ¶ 59.

Third, the remaining claim language associated with the “controller” fails to describe any structure for performing the claimed functions. Stone Decl., ¶ 60. For example, the claims do not describe how the “controller” interacts with other claimed components to perform the claimed functionality so as to inform a POSITA of the structural character of the “controller.” Stone Decl., ¶ 60. The remaining claim language associated with the “controller” recites merely what the “controller” is configured to do. But this language recites only functionality, i.e., no other structural components, and fails to provide any insight as to the structure of the “controller” or what kind of structure would perform the claimed functionality of the claimed “controller.”

Netlist’s citations to the specification do not take the “controller” limitation out of the ambit of § 112(6). Specifically, Netlist’s reliance on the specification is misplaced. “The standard is whether the *words of the claim* [not the specification] are understood by [a POSITA] to have a sufficiently definite meaning as the name for structure.” *Williamson*, 792 F.3d at 1349 (emphasis added). The analysis of what should be the specific corresponding structure from the specification for the means-plus-function “controller” limitation is part of the second inquiry regarding the construction of that means-plus-function limitation after it is determined that § 112(6) applies, not the initial inquiry as to whether § 112(6) even applies. *See Egenera*, 972 F.3d at 1372-75; *see also Williamson*, 792 F.3d at 1347-54. Here, rather than focus on the *Williamson* standard, Netlist improperly focuses on the *words of the specification* for the initial inquiry of whether § 112(6) even applies. *See Netlist Br.* at 26. Thus, Netlist’s citations to the specification do not salvage its argument by identifying structure in the specification. *MTD Prods.*, 933 F.3d at 1344; *Williamson*, 792 F.3d at 1349. The citations to the specification do nothing more than simply show that the

“controller” can be implemented in various ways, which Micron does not dispute, as detailed below in the discussion of the corresponding structure.

Notably, Netlist provides no expert testimony explaining whether a POSITA would view the term solely by function and subject to § 112, ¶ 6 despite the fact that the Federal Circuit has made clear that the test for determining whether § 112, ¶ 6 applies is whether the claim term would connote sufficient structure to “*persons of ordinary skill in the art.*” See *Williamson*, 792 F.3d at 1349 (emphasis added).

Netlist is incorrect in arguing that Micron aggregates functions from different claims and apply them to all claims. See Netlist Br. at 26-27. Micron simply identifies for the Court the various places where the “controller” limitation is claimed and identifies the claim dependent functions.

Regarding corresponding structure, the description of the corresponding structure is found at the same place in both the ’918 and ’054 patents: 21:14–26:65, 29:33–54. The text at 21:14–26:65 and 29:33–54 of the ’918 and ’054 patents, and the figures referenced in those portions of the specifications, includes ***all*** the citations to the specification that Netlist cites to argue what the corresponding structure should be for the “controller” limitation, plus ***significantly*** more disclosure. That is, 21:14–26:65 and 29:33–54 is broader than and inclusive of all of Netlist’s citations. Thus, as a ***compromise***, Micron is willing to agree that the “corresponding structure” is a “controller,” as described in both the ’918 and ’054 patents at 21:14–26:65 and 29:33–54. Not only is the foregoing “compromise corresponding structure” broad and inclusive of all of Netlist’s citations to the specification, it also moots Netlist’s concerns regarding Micron’s identification of the corresponding structure because the “compromise corresponding structure” no longer expressly calls out the “at least one circuit,” “voltage monitor circuit,” “one or more registers,” or “first circuit.”

**F. “first operable state” / “second operable state” (’054 Patent, Claims 4-7, 11-12, 16-17, 23, and 25)**

Micron’s Proposed Construction	Netlist’s Proposed Construction
<p><u>“first operable state”</u></p> <ul style="list-style-type: none"> <li>• “state in which a controller and a non-volatile memory subsystem are operatively decoupled (e.g., isolated) from a volatile memory subsystem by at least one circuit”</li> <li>• In the alternative, indefinite</li> </ul> <p><u>“second operable state”</u></p> <ul style="list-style-type: none"> <li>• “state in which the volatile memory subsystem is operatively coupled to the controller to allow data to be communicated between the volatile memory subsystem and the nonvolatile memory subsystem via the controller”</li> <li>• In the alternative, indefinite</li> </ul>	<p>“first operable state” is a “state in which the memory module is operated before transition”; not indefinite</p> <p>“second operable state” is a “state in which the memory module is operated after transition”; not indefinite</p>

Every claim that recites the “first operable state” and “second operable state” limitations (collectively, the “operable state” limitations) recites that a “memory module” “transitions” from a “first operable state” to a “second operable state” “in response to” some trigger associated with the “input voltage.” *See* ’054 patent, claims 4-7, 11-12, 16-17, 23, and 25. What is unambiguously clear from all those claims is that: (1) the “operable states” are of the “**memory module**”, and (2) it is the “**memory module**” that “transitions” from the “first operable state” to the “second operable state.” *See id.* What is **unclear** from the claim language is any objective boundary for what could constitute a first vs second operable state. If Micron’s proposed constructions are not adopted, the claims that include the “operable state” limitations are indefinite because then those claims “fail to inform, with reasonable certainty, those skilled in the art about the scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 572 U.S. 898, 901 (2014).

The only disclosure in the ’054 patent that describes (1) what the first and second states of the memory module mean and (2) the transition by the memory module between those two states is found at 24:60-25:7. There, the specification expressly discloses that the memory module has

“a first state in which the controller 1062 and the non-volatile memory subsystem 1040 are operatively decoupled (e.g., isolated) from the volatile memory subsystem 1030 by the at least one circuit 1052” and “a second state in which the volatile memory subsystem 1030 is operatively coupled to the controller 1062 to allow data to be communicated between the volatile memory subsystem 1030 and the nonvolatile memory subsystem 1040 via the controller 1062.” That portion of the specification also expressly discloses that the memory module “may transition from the first state to the second state in response to a trigger condition.” There is no other disclosure that describes what is meant when the claims recite that a “memory module” “transitions” from a “first operable state” to a “second operable state” “in response to” some trigger associated with the “input voltage.” And because Micron’s construction comports with this sole relevant disclosure, the Court should adopt Micron’s constructions for the “first operable state” and “second operable state.”

Netlist’s reference to the disclosure of the “third state” of the memory module is irrelevant and misplaced. First, it is irrelevant because that disclosure never indicates that the memory module may transition to or from that third state. As such, that “third state” cannot be either of the claimed “first operable state” or “second operable state” because all claims that recite the “operable state” limitations require that those two states be memory module states that the memory module can transition to or from. *See* ’054 patent, claims 4-7, 11-12, 16-17, 23, and 25. But there is no disclosure that the memory can transition to or from the “third state” disclosed in the specification. Rather, that “third state” appears to be merely a state of the memory module whereby “power is supplied to the volatile memory subsystem 1030 from a third power supply (not shown).” ’054 patent, 25:65-66.

**G. “first circuit” (’054 Patent, Claims 1-13, 15)**

<b>Micron’s Proposed Construction</b>	<b>Netlist’s Proposed Construction</b>
“a circuit that is different from a memory module controller”	plain and ordinary meaning

As a preliminary matter, Micron does not pursue a means-plus-function construction for this “first circuit” term because the claim does not include “means for,” “configured to,” or “operable to” transitions to functional language.

Micron’s proposal is appropriate because as explained for the “at least one circuit” term, the term “circuit” without more does not connote structure. Therefore, a POSITA would look to the context of the specification in order to determine the objective boundaries of the claim. Here, the “first circuit” is recited in terms of something being coupled to SDRAM and the “first and second regulated voltages.” ’054 patent, cl. 1. The specification describes that switch device (“at least one circuit 1052”) as a component that is coupled as recited in the claims. *See* ’054 patent, 21:14–26:65, 29:33–54 (disclosure associated with “at least one circuit 1052”). The specification describes the memory module controller 1062 as a different component. *Id.* The Court should adopt Micron’s proposal to give some structural meaning to the claim term.

**VI. CONCLUSION**

For the reasons stated herein, the Court should adopt Micron’s proposed constructions for the disputed terms and phrases.

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Respectfully submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that on June 23, 2023, the foregoing document was electronically filed with the Clerk of Court using the Court's CM/ECF system, which will send notification of such filing to all counsel of record, including counsel of record for Plaintiff Netlist Inc.

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